Length and Weight Data for Unmarked Juvenile Salmon Sampled in the Campbell River Estuary and Discovery Passage, 1983

B. D. Chang, M. S. Kotyk, T. J. Brown,
C. D. Levings, C. D. McAllister and
J. S. Macdonald

Department of Fisheries and Oceans
Fisheries Research Branch
West Vancouver Laboratory
4160 Marine Drive
West Vancouver, British Columbia V7V 1N6

March 1984

Canadian Data Report of Fisheries and Aquatic Sciences No. 446

Canadian Data Report of Fisheries and Aquatic Sciences

These reports provide a medium for filing and archiving data compilations where little or no analysis is included. Such compilations commonly will have been prepared in support of other journal publications or reports. The subject matter of Data Reports reflects the broad interests and policies of the Department of Fisheries and Oceans, namely, fisheries management, technology and development, ocean sciences, and aquatic environments relevant to Canada.

Numbers 1-25 in this series were issued as Fisheries and Marine Service Data Records. Numbers 26-160 were issued as Department of Fisheries and the Environment, Fisheries and Marine Service Data Reports. The current series name was changed with report number 161.

Data Reports are not intended for general distribution and the contents must not be referred to in other publications without prior written clearance from the issuing establishment. The correct citation appears above the abstract of each report.

Rapport statistique canadien des sciences halieutiques et aquatiques

Ces rapports servent de base à la compilation des données de classement et d'archives pour lesquelles il y a peu ou point d'analyse. Cette compilation aura d'ordinaire été préparée pour appuyer d'autres publications ou rapports. Les sujets des Rapports statistiques reflètent la vaste gamme des intérêts et politiques du Ministère des Pêches et des Océans, notamment gestion des pêches, techniques et développement, sciences océaniques et environnements aquatiques, au Canada.

Les numéros 1 à 25 de cette série ont été publiés à titre de Records statistiques, Service des pêches et de la mer. Les numéros 26-160 ont été publiés à titre de Rapports statistiques du Service des pêches et de la mer, Ministère des Pêches et de l'Environnement. Le nom de la série a été modifié à partir du numéro 161.

Les Rapports statistiques ne sont pas préparés pour une vaste distribution et leur contenu ne doit pas être mentionné dans une publication sans autorisation écrite préalable de l'établissement auteur. Le titre exact paraît au haut du résumé de chaque rapport.

84- 2875 /

Canadian Data Report of

Fisheries and Aquatic Sciences No. 446

LENGTH AND WEIGHT DATA FOR UNMARKED JUVENILE SALMON SAMPLED IN THE CAMPBELL RIVER ESTUARY AND DISCOVERY PASSAGE, 1983

March 1984

by

B.D. Chang[1], M.S. Kotyk[1], T.J. Brown[2], C.D. Levings[2], C.D. McAllister[2], and J.S. Macdonald[1]

[1]Department of Fisheries and Oceans,
Salmon Habitat Research Section,
West Vancouver Laboratory,
4160 Marine Drive,
West Vancouver, B.C., V7V 1N6

[2]Department of Fisheries and Oceans,
Salmon Habitat Research Section,
Pacific Biological Station,
Nanaimo, B.C. V9R 5K6

(c)Minister of Supply and Services Canada 1984

Cat. No. Fs 97-13/446 ISSN 0706-6465

ABSTRACT

Chang, B. D., M. S. Kotyk, T. J. Brown, C. D. Levings, C. D. McAllister, and J. S. Macdonald. 1984. Length and weight data for unmarked juvenile salmon sampled in the Campbell River estuary and Discovery Passage, 1983. Can. Data Rep. Fish. Aquat. Sci. 446: iii + 39 p.

Data are presented on lengths and weights of unmarked juvenile pink, chum, coho, and chinook salmon sampled by beach seine in the Campbell River estuary and Discovery Passage in January to December, 1983. Data are also provided on location, date, and time of capture.

RÉSUMÉ

Chang, B. D., M. S. Kotyk, T. J. Brown, C. D. Levings, C. D. McAllister, and J. S. Macdonald. 1984. Length and weight data for unmarked juvenile salmon sampled in the Campbell River estuary and Discovery Passage, 1983. Can. Data Rep. Fish. Aquat. Sci. 446: iii + 39 p.

Les auteurs présentent des données sur la longueur et le poids de saumons rose, kéta, coho et quinnat juvéniles non marqués, échantillonnés de janvier à décembre 1983 à l'aide de sennes de rivage dans l'estuaire de la rivière Campbell et dans le passage Discovery. Ils fournissent aussi de l'information sur le site, la date et le temps de capture.

INTRODUCTION

In order to study the importance of estuarine habitats to juvenile salmonids, a beach seine sampling program was undertaken in the Campbell River estuary and Discovery Passage starting in March 1982. This report presents length and weight data for unmarked juvenile pink, chum, coho, and chinook salmon sampled in January to December 1983. See Kotyk et al. (1983) for length and weight data of unmarked juvenile salmonids sampled in 1982. Data on numbers of fish captured, fishing effort, and hydrological data (temperature, salinity, tide height) are presented in Brown et al. (1983, 1984). Length and weight data for marked juvenile chinook salmon sampled in this study are presented in Gordon et al. (1983) and Kotyk et al. (1984).

Sampling will be continued through 1984. Data for 1984 will be presented in future reports.

SAMPLING PROCEDURES

Fish were caught using a 14.7 m beach seine with wings 4.9 m (1 cm stretched mesh), bunt 4.9 m (5 mm stretched mesh), and depth 1.5 m. The net was fitted with 15 m towing lines off the wings. Usually the net was pulled off the beach using a 5 m inflatable boat with a 50 hp outboard engine. The distance the net was taken offshore depended on local conditions such as currents, bottom topography, and floating obstacles (wharves, kelp beds) and therefore ranged from 5 to 15 m.

Catches were usually held in the bunt of the net while being subsampled. However, when numbers were too large for this to be feasible, they were held in floating cages (75 cm x 50 cm x 37 cm deep; 5 mm mesh size). Subsamples of the fish caught were fixed in 10% formalin. Fish were measured and weighed within 1 month of being captured; weighing was done on a Mettler PL 3000 balance.

SAMPLING LOCATIONS

Sampling was conducted at sites within the Campbell River estuary (Fig. 1), and Discovery Passage (Fig. 2). Descriptions of each of the sampling stations are presented in Brown et al. (1984). All stations occupied, including those where juvenile salmonids were not captured, are shown. Station 345 in Table IV (sample dated 28 May 1100 h) represents a combination of samples from stations 34 and 35 in the transition zone (taken between 1025 h and 1210 h).

DATA

Length and weight data are presented as follows:

Table I. pink salmon (Oncorhynchus gorbuscha).. page 4
Table II. chum salmon (O. keta)..... page 7
Table III. coho salmon (O. kisutch)..... page 16
Table IV. chinook salmon (O. tshawytscha)..... page 18

The numbers of fish measured were: 116 pink, 508 chum, 32 coho, and 1034 chinook salmon.

The data in the tables are as follows:

DATE - sampling date (year, month, day)
STN - sampling station number
TIME PST - sampling time (Pacific Standard Time)
FISH CODE - a code for identifying each fish sampled, consisting of the letter U and a 1 to 4 digit number; fish sampled in January and February were each given a unique code number, a continuation of the codes used in identifying 1982 samples; from March to December, the first fish measured in each sample was coded as U1, and the remaining fish in each sample were numbered consecutively; fish without codes were measured and weighed by M. Bradford (Simon Fraser University).
L - fork length in mm
WT - wet weight (after damp drying with paper towelling) in g
SP - species code (1 = pink; 2 = chum; 3 = coho; 5 = chinook)

Missing data are indicated as -1 or -9.

The unmarked fish sampled in this study include both wild and hatchery-reared salmonids. Further analysis may allow separation of wild and hatchery stocks by size discrimination.

ACKNOWLEDGMENTS

Thanks are due to M. Bradford, D. Campbell, I. Forrester, M. Graves, A. Hooper, R. McNaughton, M. St. John, C. Scrivener, P. Starr, and many others for assistance in the field. P. Murray did the majority of the measuring and weighing.

REFERENCES

Brown, T.J., C.D. McAllister, C.D. Levings, and M. Kotyk. 1983. Salmonid catch-data from Campbell River and Discovery Passage, 1982. Can. Data Rep. Fish. Aquat. Sci. 416. 97 p.

Brown, T.J., C.D. McAllister, C.D. Levings, M.S. Kotyk, B.D. Chang, and J.S. Macdonald. 1984. Salmonid catch-data from Campbell River and Discovery Passage, 1983. Can. Data Rep. Fish. Aquat. Sci. (in press)

Gordon, D.K., M. Kotyk, T. Brown, C.D. Levings, and C.D. McAllister. 1983. Data record on coded wire tags recovered from juvenile chinook at Campbell River estuary and Discovery Passage, 1982. Can. Data Rep. Fish. Aquat. Sci. 403. 57 p.

Kotyk, M.S., B.D. Chang, T.J. Brown, C.D. Levings, C.D. McAllister, and J.S. Macdonald. 1984. Data record on coded wire tags recovered from juvenile chinook at Campbell River estuary and Discovery Passage, 1983. Can. Data Rep. Fish. Aquat. Sci. (in press).

Kotyk, M., B.D. Chang, T.J. Brown, C.D. Levings, and C.D. McAllister. 1983. Length and weight data for unmarked juvenile salmon sampled in the Campbell River estuary and Discovery Passage, 1982. Can. Data Rep. Fish. Aquat. Sci. 408. 61 p.

Table I. Length and weight data for unmarked juvenile pink salmon (SP=1) sampled in the Campbell River estuary and Discovery Passage, 1983.

TABLE I

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830314	20	2340	U	1	34	.3	1
830314	20	2340	U	5	34	.4	1
830315	4	2240	U	1	33	.3	1
830315	4	2240	U	2	32	.3	1
830315	4	2240	U	3	34	.4	1
830315	1	2300	U	1	31	.3	1
830328	10	1345	U	2	33	.3	1
830328	10	1345	U	3	32	.2	1
830328	37	1455	U	3	30	.2	1
830328	1	1520	U	1	33	.2	1
830328	1	1520	U	4	31	.2	1
830328	15	2125	U	1	31	.2	1
830328	15	2125	U	5	32	.3	1
830328	15	2125	U	7	30	.2	1
830328	15	2125	U	8	30	.2	1
830328	15	2125	U	11	31	.2	1
830328	17	2140	U	3	33	.4	1
830328	2	2240	U	1	32	.3	1
830329	20	2110	U	1	33	.3	1
830329	1	2255	U	1	33	.3	1
830329	1	2255	U	3	32	.3	1
830329	1	2255	U	4	32	.3	1
830329	1	2255	U	5	31	.3	1
830329	1	2255	U	6	28	.2	1
830329	1	2255	U	7	33	.3	1
830329	1	2255	U	12	32	.3	1
830412	1	2245	U	13	34	.3	1
830413	21	1430	U	5	37	.4	1
830413	3	2055	U	2	36	.3	1
830421	1	2025	U	13	34	.4	1
830422	32	0928	U	1	32	.3	1
830422	32	0928	U	2	36	.4	1

TABLE I

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830422	32	0928	U	3	35	.4	1
830422	32	0928	U	4	39	.5	1
830422	32	0928	U	5	40	.2	1
830422	32	0928	U	6	36	.4	1
830422	32	0928	U	7	41	.5	1
830422	32	0928	U	8	39	.5	1
830422	32	0928	U	9	46	.9	1
830422	32	0928	U	10	44	.8	1
830422	32	0928	U	11	46	1.0	1
830422	32	0928	U	12	45	.7	1
830422	32	0928	U	13	45	.7	1
830422	32	0928	U	14	46	.8	1
830422	32	0928	U	15	44	.8	1
830422	32	0928	U	16	49	1.1	1
830422	32	0928	U	17	56	1.5	1
830422	32	0928	U	18	54	1.4	1
830422	32	0928	U	19	44	.8	1
830422	32	0928	U	21	40	.6	1
830423	324	1105	U	1	38	.5	1
830423	324	1105	U	2	39	.4	1
830423	324	1105	U	3	37	.5	1
830423	324	1105	U	4	39	.5	1
830423	324	1105	U	5	40	.6	1
830423	324	1105	U	6	40	.4	1
830423	324	1105	U	7	46	.8	1
830423	324	1105	U	8	47	.9	1
830423	37	1400	U	1	43	.7	1
830423	37	1400	U	2	41	.7	1
830423	37	1400	U	3	43	.7	1
830423	37	1400	U	4	41	.6	1
830423	37	1400	U	5	44	.8	1
830423	37	1400	U	6	41	.8	1

TABLE I

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830423	37	1400	U	7	41	.8	1
830423	37	1400	U	8	41	.7	1
830423	37	1400	U	9	39	.5	1
830423	37	1400	U	10	41	.6	1
830423	37	1400	U	11	41	.7	1
830423	37	1400	U	12	40	.7	1
830423	37	1400	U	13	44	.5	1
830423	37	1400	U	14	44	.7	1
830423	37	1400	U	15	43	.6	1
830423	37	1400	U	16	44	.7	1
830423	37	1400	U	17	43	.7	1
830423	37	1400	U	18	45	.8	1
830423	37	1400	U	19	39	.5	1
830423	37	1400	U	20	39	.4	1
830423	37	1400	U	21	42	.6	1
830423	37	1400	U	22	40	-1	1
830423	37	1400	U	23	40	.5	1
830423	37	1400	U	24	44	.7	1
830423	37	1400	U	25	44	.6	1
830423	37	1400	U	26	43	.6	1
830423	37	1400	U	27	43	.7	1
830423	37	1400	U	28	42	.6	1
830423	326	1409	U	1	34	.3	1
830424	32	0829	U	1	37	.4	1
830424	32	0829	U	2	43	.7	1
830424	32	0829	U	3	57	1.6	1
830508	25	1100	U	1	57	1.7	1
830508	25	1100	U	2	49	1.2	1
830508	25	1100	U	3	57	1.6	1
830508	25	1100	U	4	60	1.7	1
830508	25	1100	U	5	47	1.1	1
830508	25	1100	U	6	43	.9	1

TABLE I

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830508	25	1100	U	7	51	1.1	1
830508	25	1100	U	8	41	.8	1
830508	25	1100	U	9	46	.9	1
830508	25	1100	U	10	41	.6	1
830508	25	1100	U	11	41	.6	1
830508	25	1100	U	12	43	.6	1
830517	32	0855	U	1	49	1.1	1
830517	32	0855	U	2	49	1.0	1
830517	32	0855	U	3	50	1.0	1
830517	32	0855	U	4	49	1.0	1
830517	32	0855	U	5	52	1.4	1
830517	32	0855	U	6	49	1.5	1
830517	32	0855	U	7	52	1.4	1
830517	323	0937	U	1	44	1.0	1
830517	323	0937	U	2	62	2.1	1
830528	8	0900	U	2	140	22.7	1
830529	21	0825	U	1	77	3.8	1
830529	21	0825	U	2	85	6.3	1
830529	21	0825	U	3	79	4.3	1
830529	21	0825	U	4	88	6.4	1

Table II. Length and weight data for unmarked juvenile chum salmon (SP=2) sampled in the Campbell River estuary and Discovery Passage, 1983.

TABLE II

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830314	4	2103	U	1	35	.4	2
830314	4	2103	U	2	34	.4	2
830314	4	2103	U	3	32	.5	2
830314	7	2255	U	3	39	.5	2
830314	20	2340	U	2	37	.4	2
830314	20	2340	U	3	36	.5	2
830314	20	2340	U	4	34	.4	2
830315	47	0245	U	1	34	.3	2
830315	47	0245	U	2	31	.3	2
830315	47	0245	U	3	34	.4	2
830315	47	0245	U	4	31	.3	2
830315	47	0245	U	5	32	.3	2
830315	47	1030	U	1	34	.4	2
830315	47	1030	U	2	35	.5	2
830315	47	1030	U	3	37	.5	2
830315	47	1030	U	4	33	.4	2
830315	47	1030	U	5	34	.4	2
830315	6	1057	U	2	35	.5	2
830315	11	1135	U	1	38	.3	2
830315	15	2115	U	1	35	.4	2
830315	15	2115	U	5	36	.5	2
830315	14	2125	U	1	34	.5	2
830315	14	2125	U	2	37	.5	2
830315	4	2240	U	4	35	.5	2
830315	4	2240	U	5	34	.7	2
830315	1	2300	U	2	35	.4	2
830328	10	2010	U	2	35	.4	2
830328	10	2010	U	3	35	.4	2
830328	10	2010	U	4	36	.5	2
830328	47	2025	U	16	36	.3	2
830328	15	2125	U	9	35	.4	2
830328	15	2125	U	10	38	.4	2

TABLE II

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830328	17	2140	U	4	36	.5	2
830328	17	2140	U	5	36	.4	2
830328	17	2140	U	6	35	.4	2
830328	1	2250	U	6	37	.4	2
830328	1	2250	U	7	36	.4	2
830328	1	2250	U	8	38	.5	2
830328	1	2250	U	9	35	.4	2
830328	1	2250	U	10	34	.4	2
830328	1	2250	U	11	37	.4	2
830328	1	2250	U	12	36	.5	2
830328	1	2250	U	13	34	.5	2
830328	1	2250	U	14	37	.4	2
830329	141	1000	U	2	34	.3	2
830329	141	1000	U	3	31	.2	2
830329	141	1000	U	4	32	.3	2
830329	141	1000	U	5	35	.3	2
830329	15	1010	U	7	38	.5	2
830329	15	1010	U	8	33	.3	2
830329	15	1010	U	9	35	.3	2
830329	15	1010	U	10	36	.5	2
830329	15	1010	U	11	36	.4	2
830329	15	1010	U	12	36	.4	2
830329	15	1010	U	13	34	.3	2
830329	15	1010	U	14	36	.4	2
830329	15	1010	U	16	32	.3	2
830329	15	1010	U	17	36	.4	2
830329	15	1010	U	18	37	.5	2
830329	15	1010	U	19	38	.4	2
830329	15	1010	U	20	36	.4	2
830329	15	1010	U	21	38	.4	2
830329	15	1010	U	22	34	.4	2
830329	15	1010	U	23	33	.3	2

TABLE II

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830329	15	1010	U	24	33	.4	2
830329	15	1010	U	25	37	.5	2
830329	15	1010	U	26	33	.3	2
830329	47	1040	U	9	39	.5	2
830329	47	1040	U	10	38	.4	2
830329	47	1040	U	11	36	.3	2
830329	47	1040	U	12	36	.4	2
830329	47	1040	U	13	34	.3	2
830329	47	1040	U	14	35	.4	2
830329	47	1040	U	15	38	.6	2
830329	47	1040	U	16	37	.4	2
830329	47	1040	U	17	38	.5	2
830329	47	1040	U	18	30	.3	2
830329	47	1040	U	19	37	.4	2
830329	47	1040	U	20	37	.4	2
830329	47	1040	U	21	36	.4	2
830329	10	1105	U	6	42	.9	2
830329	10	1105	U	12	35	.4	2
830329	10	1105	U	13	37	.5	2
830329	10	1105	U	14	39	.4	2
830329	10	1105	U	15	36	.4	2
830329	10	1105	U	16	34	.4	2
830329	10	1105	U	17	37	.5	2
830329	10	1105	U	18	36	.5	2
830329	10	1105	U	19	37	.4	2
830329	10	1105	U	20	35	.4	2
830329	10	1105	U	21	35	.3	2
830329	7	2050	U	5	32	.3	2
830329	7	2050	U	6	33	.3	2
830329	7	2050	U	7	36	.4	2
830329	7	2050	U	8	36	.4	2
830329	7	2050	U	9	33	.4	2

TABLE II

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830329	7	2050	U	10	38	.4	2
830329	20	2110	U	2	38	.5	2
830329	47	2130	U	6	35	.3	2
830329	47	2130	U	7	36	.4	2
830329	47	2130	U	8	35	.4	2
830329	47	2130	U	9	36	.4	2
830329	47	2130	U	10	36	.5	2
830329	47	2130	U	11	35	.4	2
830329	47	2130	U	12	39	.5	2
830329	47	2130	U	13	35	.4	2
830329	47	2130	U	14	35	.4	2
830329	10	2155	U	1	37	.3	2
830329	10	2155	U	2	33	.3	2
830329	8	2225	U	2	36	.6	2
830329	1	2255	U	2	34	.3	2
830329	1	2255	U	8	37	.4	2
830329	1	2255	U	9	35	.5	2
830329	1	2255	U	10	36	.4	2
830329	1	2255	U	11	36	.4	2
830329	1	2255	U	13	33	.4	2
830412	1	1520	U	1	36	.4	2
830412	1	1520	U	2	35	.4	2
830412	1	1520	U	3	35	.4	2
830412	1	1520	U	4	35	.4	2
830412	47	2130	U	10	34	.5	2
830412	47	2130	U	11	38	.4	2
830412	47	2130	U	12	38	.4	2
830412	47	2130	U	13	36	.4	2
830412	47	2130	U	14	35	.3	2
830412	47	2130	U	15	36	.3	2
830412	47	2130	U	16	33	.3	2
830412	47	2130	U	17	37	.5	2

TABLE II

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830412	47	2130	U	18	36	.6	2
830412	47	2130	U	19	37	.3	2
830412	47	2130	U	20	33	.3	2
830412	47	2130	U	21	35	.6	2
830412	7	2200	U	7	35	.5	2
830412	7	2200	U	8	36	.5	2
830412	7	2200	U	9	37	.5	2
830412	7	2200	U	10	37	.4	2
830412	7	2200	U	11	37	.5	2
830412	7	2200	U	12	35	.4	2
830412	7	2200	U	13	37	.5	2
830412	7	2200	U	14	37	.5	2
830412	8	2220	U	4	36	.4	2
830412	8	2220	U	5	35	.4	2
830412	8	2220	U	6	36	.4	2
830412	8	2220	U	7	37	.5	2
830412	8	2220	U	8	36	.4	2
830412	8	2225	U	2	37	.4	2
830412	1	2245	U	8	35	.5	2
830412	1	2245	U	9	36	.5	2
830412	1	2245	U	10	36	.4	2
830412	1	2245	U	11	34	.4	2
830412	1	2245	U	12	34	.4	2
830412	1	2245	U	14	34	.4	2
830413	24	1135	U	1	37	.4	2
830413	24	1135	U	2	34	.3	2
830413	24	1135	U	3	35	.3	2
830413	24	1135	U	4	35	.3	2
830413	24	1135	U	5	37	.4	2
830413	24	1135	U	6	35	.3	2
830413	25	1230	U	1	45	.7	2
830413	21	1430	U	6	43	.6	2

TABLE II

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830413	21	1430	U	7	36	.4	2
830413	21	1430	U	8	38	.5	2
830413	3	2055	U	1	33	.3	2
830413	3	2055	U	3	35	.4	2
830413	3	2055	U	4	36	.4	2
830413	3	2055	U	5	38	.5	2
830413	3	2055	U	6	35	.4	2
830413	3	2055	U	7	34	.4	2
830413	3	2055	U	8	37	.4	2
830414	6	0935	U	1	35	.3	2
830414	6	0935	U	2	38	.4	2
830414	6	0935	U	3	36	.4	2
830414	6	0935	U	4	37	.4	2
830414	6	0935	U	5	35	.4	2
830414	10	2045	U	1	37	.5	2
830414	20	2230	U	1	35	.4	2
830414	20	2230	U	2	36	.5	2
830421	1	2025	U	1	33	.3	2
830421	1	2025	U	2	35	.3	2
830421	1	2025	U	3	34	.4	2
830421	1	2025	U	4	37	.5	2
830421	1	2025	U	5	36	.4	2
830421	1	2025	U	6	34	.4	2
830421	1	2025	U	7	37	.4	2
830421	1	2025	U	8	38	.5	2
830421	1	2025	U	9	35	.5	2
830421	1	2025	U	10	34	.2	2
830421	1	2025	U	11	35	.4	2
830421	1	2025	U	12	34	.4	2
830421	7	2140	U	1	34	.3	2
830421	7	2140	U	2	35	.3	2
830421	7	2140	U	3	36	.4	2

TABLE II

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830421	7	2140	U	4	35	.4	2
830421	7	2140	U	5	36	.4	2
830421	7	2140	U	6	38	.5	2
830422	32	0928	U	20	37	.5	2
830422	32	0928	U	22	46	1.0	2
830422	32	0928	U	23	40	.8	2
830422	32	0928	U	24	47	1.2	2
830422	32	0928	U	25	45	1.1	2
830422	32	0928	U	26	45	1.1	2
830422	32	0928	U	27	46	1.0	2
830422	32	0928	U	28	43	1.0	2
830422	32	0928	U	29	47	1.2	2
830422	32	0928	U	30	49	1.3	2
830422	32	0928	U	31	39	.9	2
830422	32	0928	U	32	39	.7	2
830422	32	0928	U	33	44	1.0	2
830422	32	0928	U	34	45	1.1	2
830422	32	0928	U	35	43	1.1	2
830422	32	0928	U	36	40	.9	2
830422	32	0928	U	37	42	1.0	2
830422	32	0928	U	38	38	.9	2
830422	32	0928	U	39	39	.8	2
830422	32	0928	U	40	37	.7	2
830422	32	0928	U	41	36	.7	2
830422	32	0928	U	42	42	1.0	2
830422	32	0928	U	43	43	.9	2
830422	32	0928	U	44	36	.9	2
830422	32	0928	U	45	36	.4	2
830422	32	0928	U	46	39	.4	2
830422	32	0928	U	47	38	.4	2
830422	32	0928	U	48	40	.5	2
830422	32	0928	U	49	38	.4	2

TABLE II

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830422	32	0928	U	50	41	.5	2
830422	32	0928	U	51	39	.5	2
830422	32	0928	U	52	45	.8	2
830422	32	0928	U	53	37	.6	2
830422	32	0928	U	54	36	.4	2
830422	32	0928	U	55	37	.5	2
830422	32	0928	U	56	33	.3	2
830422	32	0928	U	57	44	.8	2
830422	32	0928	U	58	36	.4	2
830422	32	0928	U	59	38	.4	2
830422	32	0928	U	60	37	.4	2
830422	32	0928	U	61	41	.8	2
830422	32	0928	U	62	43	.7	2
830422	32	0928	U	63	42	.9	2
830422	32	0928	U	64	49	1.0	2
830422	48	1010	U	1	36	.3	2
830422	48	1010	U	2	36	.4	2
830422	48	1010	U	3	36	.5	2
830422	48	1010	U	4	36	.4	2
830422	48	1010	U	5	35	.4	2
830422	48	1010	U	6	37	.3	2
830422	48	1010	U	7	35	.4	2
830422	48	1010	U	8	37	.4	2
830422	48	1010	U	9	37	.4	2
830422	48	1010	U	10	37	.5	2
830422	48	1010	U	11	34	.4	2
830422	6	1035	U	2	35	.4	2
830422	6	1035	U	3	37	.6	2
830422	6	1035	U	4	35	.6	2
830422	6	1035	U	5	33	.5	2
830422	6	1035	U	6	36	.4	2
830422	6	1035	U	7	37	.5	2

TABLE II

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830422	6	1035	U	8	37	.4	2
830422	6	1035	U	9	39	.4	2
830422	6	1035	U	10	40	.8	2
830422	6	1035	U	11	36	.5	2
830422	6	1035	U	12	36	.6	2
830422	6	1035	U	13	34	.4	2
830422	6	1035	U	14	33	.5	2
830422	6	1035	U	15	43	.7	2
830423	324	1105	U	9	38	.5	2
830423	324	1105	U	10	40	.5	2
830423	324	1105	U	11	42	.5	2
830423	324	1105	U	12	48	1.0	2
830423	324	1105	U	13	44	.9	2
830423	324	1105	U	14	44	.6	2
830423	324	1105	U	15	51	1.1	2
830423	324	1105	U	16	40	.7	2
830423	324	1105	U	17	49	.9	2
830423	324	1105	U	18	47	1.0	2
830423	324	1105	U	19	52	1.5	2
830423	324	1105	U	20	46	.9	2
830423	324	1105	U	21	57	1.8	2
830423	324	1105	U	22	56	1.6	2
830423	328	1246	U	1	46	.8	2
830423	328	1246	U	2	37	.4	2
830423	326	1409	U	2	35	.4	2
830423	326	1409	U	3	35	.3	2
830423	326	1409	U	4	36	.4	2
830423	326	1409	U	5	34	.2	2
830423	326	1409	U	6	35	.3	2
830423	326	1409	U	7	37	.5	2
830423	326	1409	U	8	36	.5	2
830423	326	1409	U	9	37	.5	2

TABLE II

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830423	31	1410	U	1	35	.4	2
830423	31	1410	U	2	39	.5	2
830423	31	1410	U	3	37	.5	2
830423	31	1410	U	4	40	.4	2
830423	31	1410	U	5	37	.4	2
830423	31	1410	U	6	37	.4	2
830423	31	1410	U	7	32	.3	2
830423	31	1410	U	8	37	.4	2
830423	31	1410	U	9	37	.4	2
830423	31	1410	U	10	41	.6	2
830423	241	1500	U	4	110	13.1	2
830423	241	1500	U	11	46	1.1	2
830423	3	1625	U	1	40	.4	2
830423	3	1625	U	2	36	.3	2
830423	3	1625	U	3	39	.5	2
830423	3	1625	U	4	36	.3	2
830423	3	1625	U	5	36	.4	2
830423	3	1625	U	6	38	.5	2
830423	3	1625	U	7	34	.3	2
830423	3	1625	U	8	39	.4	2
830423	3	1625	U	9	36	.4	2
830423	3	1625	U	10	38	.5	2
830423	3	1625	U	11	37	.4	2
830423	3	1625	U	12	41	.6	2
830423	14	1705	U	1	35	.4	2
830423	14	1705	U	2	36	.4	2
830423	14	1705	U	3	37	.4	2
830423	14	1705	U	4	41	.7	2
830423	6	1755	U	1	35	.3	2
830423	6	1755	U	2	37	.4	2
830423	6	1755	U	3	37	.3	2
830423	6	1755	U	4	44	.6	2

TABLE II

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830424	47	0750	U	1	34	.4	2
830424	32	0829	U	4	35	.4	2
830424	32	0829	U	5	35	.4	2
830424	32	0829	U	6	37	.4	2
830424	32	0829	U	7	41	.6	2
830424	32	0829	U	8	37	.6	2
830424	32	0829	U	9	41	.9	2
830424	32	0829	U	10	48	1.0	2
830424	32	0829	U	11	44	.7	2
830424	32	0829	U	12	44	.9	2
830424	32	0829	U	13	46	.9	2
830424	32	0829	U	14	52	1.3	2
830424	32	0829	U	15	52	1.4	2
830425	7	0805	U	1	36	.3	2
830425	7	0805	U	2	38	.5	2
830505	15	1400	U	11	36	.4	2
830505	15	1400	U	12	36	.4	2
830505	15	1400	U	13	34	.4	2
830505	15	1400	U	14	34	.4	2
830505	15	1400	U	15	37	.5	2
830505	15	1400	U	16	35	.4	2
830505	15	1400	U	17	36	.4	2
830505	15	1400	U	18	35	.5	2
830505	15	1400	U	19	37	.6	2
830505	15	1400	U	20	34	.5	2
830507	6	1505	U	8	49	.9	2
830507	6	1505	U	9	44	.7	2
830507	6	1505	U	10	44	.6	2
830507	6	1505	U	11	44	.7	2
830507	6	1505	U	12	42	.7	2
830507	6	1505	U	13	36	.4	2
830507	6	1505	U	14	46	.8	2

TABLE II

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830508	6	0830	U	1	39	.4	2
830508	25	1100	U	13	63	2.0	2
830508	25	1100	U	14	51	1.2	2
830508	25	1100	U	15	51	1.2	2
830508	25	1100	U	16	58	1.0	2
830508	25	1100	U	17	46	.9	2
830508	25	1100	U	18	46	.8	2
830508	25	1100	U	19	46	.6	2
830508	25	1100	U	20	53	1.1	2
830508	25	1100	U	21	47	.9	2
830508	25	1100	U	22	49	.9	2
830508	25	1100	U	23	49	1.0	2
830508	25	1100	U	24	41	.5	2
830516	22	1650	U	1	40	.6	2
830516	22	1650	U	2	46	.9	2
830516	22	1650	U	3	47	1.0	2
830516	22	1650	U	4	58	1.6	2
830516	20	1715	U	1	42	.7	2
830516	20	1715	U	2	41	.7	2
830516	20	1715	U	3	45	.9	2
830516	20	1715	U	4	49	.9	2
830516	20	1715	U	5	48	1.2	2
830516	20	1715	U	6	47	1.1	2
830516	20	1715	U	7	56	1.9	2
830516	20	1715	U	8	56	1.7	2
830516	20	1715	U	9	61	2.0	2
830516	20	1715	U	10	61	2.2	2
830516	20	1715	U	11	61	2.2	2
830517	31	0830	U	1	40	.6	2
830517	31	0830	U	2	43	.7	2
830517	31	0830	U	3	42	.5	2
830517	31	0830	U	4	48	.9	2

TABLE II

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830517	31	0830	U	5	50	1.2	2
830517	31	0830	U	6	48	1.0	2
830517	31	0830	U	7	55	1.4	2
830517	31	0830	U	8	53	1.5	2
830517	31	0830	U	9	54	1.7	2
830517	32	0855	U	8	44	.7	2
830517	32	0855	U	9	44	.8	2
830517	32	0855	U	10	43	.7	2
830517	32	0855	U	11	43	.9	2
830517	32	0855	U	12	45	.9	2
830517	32	0855	U	13	43	.8	2
830517	32	0855	U	14	45	.9	2
830517	32	0855	U	15	45	.9	2
830517	32	0855	U	16	46	1.0	2
830517	32	0855	U	17	44	.9	2
830517	32	0855	U	18	46	1.1	2
830517	32	0855	U	19	53	1.4	2
830517	32	0855	U	20	49	1.4	2
830517	323	0937	U	3	39	.6	2
830517	323	0937	U	4	39	.5	2
830517	323	0937	U	5	41	.6	2
830517	323	0937	U	6	43	.6	2
830517	323	0937	U	7	42	.8	2
830517	323	0937	U	8	43	.9	2
830517	323	0937	U	9	49	1.1	2
830517	323	0937	U	10	49	1.2	2
830517	323	0937	U	11	48	1.1	2
830517	323	0937	U	12	45	1.1	2
830517	25	1150	U	1	35	.3	2
830517	25	1150	U	2	45	.9	2
830517	25	1150	U	3	51	1.0	2
830517	25	1150	U	4	52	1.3	2

TABLE II

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830517	25	1150	U	5	54	1.4	2
830517	25	1150	U	6	59	1.8	2
830517	25	1150	U	7	48	1.1	2
830517	25	1150	U	8	54	1.6	2
830517	25	1150	U	9	59	2.2	2
830517	25	1150	U	10	57	1.9	2
830517	25	1150	U	11	55	1.9	2
830517	25	1150	U	12	59	2.0	2
830517	25	1150	U	13	57	2.0	2
830517	23	1240	U	1	54	1.7	2
830517	23	1240	U	2	61	2.1	2
830517	23	1240	U	3	50	1.4	2
830518	151	1154	U	1	43	.7	2
830518	34	1700	U	1	53	1.4	2
830518	34	1700	U	2	53	1.4	2
830527	4	2035	U	1	95	10.2	2
830528	8	0900	U	4	44	.8	2
830528	8	0900	U	1	43	.9	2
830529	21	0825	U	5	61	2.0	2
830529	21	0825	U	6	63	2.1	2
830529	21	0825	U	7	64	2.6	2
830529	21	0825	U	8	66	2.8	2
830529	21	0825	U	9	71	3.7	2
830529	21	0825	U	10	76	4.3	2
830529	21	0825	U	11	77	4.7	2
830529	21	0825	U	12	75	3.8	2
830529	21	0825	U	13	89	7.0	2
830529	21	0825	U	14	70	3.4	2
830529	21	0825	U	15	68	2.7	2
830529	21	0825	U	16	82	5.4	2
830529	21	0825	U	17	73	3.4	2
830529	21	0825	U	18	80	5.2	2

TABLE II

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830529	21	0825	U	19	95	7.9	2
830529	21	0825	U	20	93	7.2	2
830607	21	1905	U	1	85	5.9	2
830607	21	1905	U	2	68	2.7	2
830607	21	1905	U	3	88	6.9	2
830607	21	1905	U	4	59	2.0	2
830607	21	1905	U	5	93	7.7	2
830607	21	1905	U	6	84	5.4	2
830607	21	1905	U	7	125	25.5	2
830607	21	1905	U	8	89	6.7	2
830607	21	1905	U	9	58	1.9	2
830607	21	1905	U	10	69	3.2	2
830607	21	1905	U	11	71	3.8	2
830607	21	1905	U	12	76	3.9	2
830608	-1	-1	U	2	85	6.0	2
830608	-1	-1	U	3	96	7.7	2
830608	-1	-1	U	4	79	4.8	2
830608	-1	-1	U	5	90	7.2	2
830608	-1	-1	U	8	84	5.8	2
830608	-1	-1	U	9	80	5.6	2
830608	-1	-1	U	10	69	3.8	2
830608	-1	-1	U	11	94	8.1	2
830608	-1	-1	U	12	88	7.1	2
830608	-1	-1	U	13	73	4.0	2
830616	21	1820	U	1	100	10.1	2
830616	21	1820	U	2	72	3.5	2
830616	21	1820	U	3	78	4.5	2
830616	21	1820	U	4	67	3.0	2
830616	21	1820	U	5	47	.9	2
830616	21	1820	U	6	70	3.6	2
830616	21	1820	U	7	78	4.2	2
830616	21	1820	U	8	74	4.0	2

TABLE II

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830616	21	1820	U	9	77	4.9	2
830708	31	0805	U	1	93	7.9	2
830708	31	0805	U	2	90	7.1	2
830708	31	0805	U	3	85	6.1	2
830708	31	0805	U	4	92	7.2	2
830708	31	0805	U	5	100	10.1	2
830708	31	0805	U	6	96	8.0	2
830708	31	0805	U	7	86	6.2	2
830708	31	0805	U	8	94	8.4	2
830708	31	0805	U	9	101	11.2	2
830708	31	0805	U	10	87	6.0	2
830708	31	0805	U	11	65	2.3	2
830708	31	0805	U	12	83	5.2	2
830708	21	1355	U	2	56	1.5	2
830720	328	0930	U	1	72	3.7	2
830722	21	0900	U	1	86	6.2	2
830722	21	0900	U	2	90	6.7	2
830722	21	0900	U	3	93	7.8	2
830722	21	0900	U	4	97	9.6	2
830722	21	0900	U	5	80	4.7	2
830722	21	0900	U	6	96	9.1	2
830722	21	0900	U	7	90	7.3	2
830722	21	0900	U	8	99	10.0	2
830722	21	0900	U	9	104	11.2	2
830722	21	0900	U	10	99	10.3	2
830818	292	0745	U	10	87	6.7	2
830907	21	1250	U	1	155	34.7	2
830908	8	0740	U	1	153	45.1	2

Table III. Length and weight data for unmarked juvenile coho salmon (SP=3) sampled in the Campbell River estuary and Discovery Passage, 1983.

TABLE III

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830315	6	1057	U	3	32	.4	3
830328	10	1345	U	1	40	.7	3
830328	47	2025	U	1	42	.9	3
830328	47	2025	U	2	37	.7	3
830328	47	2025	U	5	38	.8	3
830328	7	2040	U	1	42	.6	3
830328	7	2040	U	3	42	.7	3
830328	7	2040	U	6	40	.7	3
830328	151	2110	U	1	41	.7	3
830328	151	2110	U	5	40	.7	3
830328	17	2140	U	2	39	.7	3
830421	32	1526	U	55	55	1.5	3
830423	241	1500	U	1	73	3.7	3
830423	241	1500	U	2	101	10.2	3
830423	241	1500	U	3	71	3.8	3
830507	8	1430	U	1	119	16.1	3
830507	8	1430	U	2	114	16.8	3
830507	8	1430	U	3	113	16.4	3
830507	8	1430	U	4	127	22.1	3
830507	8	1430	U	5	123	18.4	3
830507	6	1505	U	1	44	.7	3
830608	-1	-1	U	1	99	9.8	3
830608	-1	-1	U	6	97	8.9	3
831107	47	2125	U	2	61	2.8	3
831107	47	2125	U	3	68	4.2	3
831107	47	2125	U	4	54	2.3	3
831107	47	2125	U	5	54	2.4	3
831107	10	2140	U	4	62	3.4	3
831206	47	2000	U	1	73	4.5	3
831206	8	2140	U	3	56	2.1	3
831206	8	2140	U	4	93	10.3	3
831207	7	1950	U	1	84	7.2	3

Table IV. Length and weight data for unmarked juvenile chinook salmon (SP=5) sampled in the Campbell River estuary and Discovery Passage, 1983.

TABLE IV

DATE	STN	TIME PST	FISH CODE	L MM	WT G	SP
830126	7	1915	U3290	150	43.4	5
830126	7	1915	U3291	178	74.2	5
830126	8	1931	U3292	141	35.8	5
830126	3	2155	U3293	142	33.2	5
830126	3	2155	U3294	136	31.6	5
830126	3	2155	U3295	129	23.9	5
830126	3	2155	U3296	155	45.5	5
830127	11	1845	U3297	168	52.6	5
830127	11	1845	U3298	178	75.1	5
830127	11	1845	U3299	169	54.8	5
830127	11	1845	U3300	156	47.9	5
830127	11	1845	U3301	152	43.6	5
830127	1	1950	U3302	162	50.4	5
830127	1	1950	U3303	142	33.2	5
830127	1	1950	U3304	155	42.8	5
830127	1	1950	U3305	157	43.5	5
830127	2	2012	U3306	178	74.4	5
830127	2	2012	U3307	169	61.6	5
830127	3	2037	U3308	163	53.7	5
830127	1	2130	U3309	160	46.2	5
830127	3	2215	U3310	160	47.1	5
830127	3	2215	U3311	156	41.2	5
830222	7	1915	U3318	165	57.5	5
830222	8	1950	U3314	163	49.2	5
830222	8	1950	U3315	174	66.1	5
830222	8	1950	U3316	177	68.3	5
830222	3	2015	U3322	179	73.6	5
830222	12	2125	U3320	166	61.5	5
830222	14	2200	U3319	158	52.9	5
830223	1	1825	U3323	165	58.8	5
830223	3	1904	U3324	180	76.5	5
830223	8	2047	U3321	161	56.3	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830314	10	2012	U	1	39	.6	5
830314	7	2030	U	1	39	.7	5
830314	7	2030	U	2	40	.5	5
830314	7	2030	U	3	41	.8	5
830314	1	2130	U	1	37	.5	5
830314	3	2202	U	1	178	72.3	5
830314	3	2202	U	2	164	57.8	5
830314	7	2255	U	1	174	69.5	5
830314	7	2255	U	2	38	.6	5
830314	7	2255	U	4	39	.8	5
830314	8	2320	U	1	42	.7	5
830315	47	1030	U	6	43	1.0	5
830315	47	1030	U	7	40	.9	5
830315	47	1030	U	8	65	3.8	5
830315	6	1057	U	1	41	.8	5
830315	11	1135	U	2	37	.3	5
830315	11	1135	U	3	40	.3	5
830315	11	1135	U	4	41	.4	5
830315	11	1135	U	5	39	.4	5
830315	11	1135	U	6	39	.4	5
830315	11	1135	U	7	40	.6	5
830315	11	1135	U	8	39	.7	5
830315	11	1135	U	9	39	.7	5
830315	11	1135	U	10	38	.8	5
830315	11	1135	U	11	34	.5	5
830315	10	2020	U	1	42	1.0	5
830315	15	2115	U	2	37	.6	5
830315	15	2115	U	3	36	.6	5
830315	15	2115	U	4	40	.8	5
830315	15	2115	U	6	168	55.5	5
830315	15	2115	U	7	183	83.8	5
830315	14	2125	U	3	38	.7	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830315	14	2125	U	4	185	85.8	5
830315	21	2155	U	1	187	85.5	5
830315	4	2240	U	6	41	.8	5
830315	1	2300	U	3	39	.6	5
830315	1	2300	U	4	38	.6	5
830315	1	2300	U	5	37	.5	5
830315	1	2300	U	6	44	.9	5
830315	1	2300	U	7	176	77.0	5
830315	1	2300	U	8	165	60.5	5
830316	7	0935	U	1	39	.6	5
830328	8	1420	U	1	43	.8	5
830328	37	1455	U	1	39	.7	5
830328	37	1455	U	2	40	.6	5
830328	1	1520	U	2	36	.3	5
830328	1	1520	U	3	36	.5	5
830328	10	2010	U	1	40	.6	5
830328	3	2020	U	1	41	.7	5
830328	47	2025	U	3	34	.4	5
830328	47	2025	U	4	35	.5	5
830328	47	2025	U	6	42	.9	5
830328	47	2025	U	7	35	.4	5
830328	47	2025	U	8	36	.4	5
830328	47	2025	U	9	37	.4	5
830328	47	2025	U	10	37	.4	5
830328	47	2025	U	11	34	.3	5
830328	47	2025	U	12	35	.4	5
830328	47	2025	U	13	36	.4	5
830328	47	2025	U	14	38	.4	5
830328	47	2025	U	15	34	.4	5
830328	7	2040	U	2	33	.3	5
830328	7	2040	U	4	36	.4	5
830328	7	2040	U	5	37	.4	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830328	7	2040	U	7	35	.4	5
830328	7	2040	U	8	39	.4	5
830328	151	2110	U	2	41	.6	5
830328	151	2110	U	3	37	.4	5
830328	151	2110	U	4	38	.5	5
830328	151	2110	U	6	35	.3	5
830328	151	2110	U	7	37	.3	5
830328	15	2125	U	2	37	.3	5
830328	15	2125	U	3	36	.3	5
830328	15	2125	U	4	35	.4	5
830328	15	2125	U	6	36	.3	5
830328	15	2125	U	12	41	.7	5
830328	17	2140	U	1	39	.7	5
830328	11	2210	U	1	40	.7	5
830328	11	2210	U	2	37	.5	5
830328	1	2250	U	1	40	.6	5
830328	1	2250	U	2	40	.6	5
830328	1	2250	U	3	42	.9	5
830328	1	2250	U	4	40	.8	5
830328	1	2250	U	5	39	.7	5
830329	141	1000	U	1	39	.5	5
830329	15	1010	U	1	42	.7	5
830329	15	1010	U	2	40	.6	5
830329	15	1010	U	3	41	.8	5
830329	15	1010	U	4	40	.6	5
830329	15	1010	U	5	43	.6	5
830329	15	1010	U	6	37	.5	5
830329	15	1010	U	15	42	.7	5
830329	47	1040	U	1	40	.7	5
830329	47	1040	U	2	40	.8	5
830329	47	1040	U	3	43	1.0	5
830329	47	1040	U	4	40	.7	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830329	47	1040	U	5	41	.8	5
830329	47	1040	U	6	37	.5	5
830329	47	1040	U	7	41	.7	5
830329	47	1040	U	8	40	.7	5
830329	47	1040			36	.4	5
830329	47	1040			38	.6	5
830329	47	1040			42	.7	5
830329	47	1040			41	.7	5
830329	47	1040			41	.7	5
830329	47	1040			42	.6	5
830329	47	1040			38	.5	5
830329	47	1040			41	.7	5
830329	47	1040			35	.4	5
830329	47	1040			38	.6	5
830329	47	1040			37	.5	5
830329	47	1040			39	.6	5
830329	47	1040			39	.6	5
830329	47	1040			40	.6	5
830329	47	1040			39	.7	5
830329	47	1040			39	.6	5
830329	47	1040			39	.7	5
830329	47	1040			42	.7	5
830329	47	1040			40	.6	5
830329	47	1040			39	.5	5
830329	10	1105	U	1	45	.7	5
830329	10	1105	U	2	39	.6	5
830329	10	1105	U	3	38	.7	5
830329	10	1105	U	4	38	.6	5
830329	10	1105	U	5	40	.7	5
830329	10	1105	U	7	40	.6	5
830329	10	1105	U	8	40	.7	5
830329	10	1105	U	9	40	.6	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830329	10	1105	U	10	40	.6	5
830329	10	1105	U	11	37	.5	5
830329	7	2050	U	1	42	.8	5
830329	7	2050	U	2	42	.7	5
830329	7	2050	U	3	40	.7	5
830329	7	2050	U	4	39	.5	5
830329	47	2130	U	1	41	.7	5
830329	47	2130	U	2	39	.6	5
830329	47	2130	U	3	40	.7	5
830329	47	2130	U	4	41	.6	5
830329	47	2130	U	5	32	.3	5
830329	10	2155	U	3	38	.6	5
830329	10	2155	U	4	40	.6	5
830329	8	2225	U	1	38	.7	5
830412	47	1405	U	1	42	.9	5
830412	47	1405	U	2	40	.8	5
830412	47	1405	U	3	39	.5	5
830412	47	2130	U	1	38	.6	5
830412	47	2130	U	2	40	.7	5
830412	47	2130	U	3	41	.8	5
830412	47	2130	U	4	40	.8	5
830412	47	2130	U	5	40	.8	5
830412	47	2130	U	6	40	.8	5
830412	47	2130	U	7	40	.8	5
830412	47	2130	U	8	44	.9	5
830412	47	2130	U	9	42	.8	5
830412	47	2130	U	22	44	1.0	5
830412	7	2200	U	1	43	.9	5
830412	7	2200	U	2	37	.5	5
830412	7	2200	U	3	39	.7	5
830412	7	2200	U	4	37	.5	5
830412	7	2200	U	5	40	.7	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830412	7	2200	U	6	40	.8	5
830412	8	2220	U	1	41	.8	5
830412	8	2220	U	2	42	.6	5
830412	8	2220	U	3	42	.8	5
830412	8	2225	U	1	42	.7	5
830412	8	2225	U	3	41	.8	5
830412	1	2245	U	1	41	.8	5
830412	1	2245	U	2	42	.8	5
830412	1	2245	U	3	42	.8	5
830412	1	2245	U	4	40	.6	5
830412	1	2245	U	5	41	.8	5
830412	1	2245	U	6	38	.7	5
830412	1	2245	U	7	39	.7	5
830413	21	1430	U	1	41	.5	5
830413	21	1430	U	2	38	.5	5
830413	21	1430	U	3	39	.6	5
830413	21	1430	U	4	39	.6	5
830421	1	2025	U	14	43	1.1	5
830421	11	2100	U	1	40	.9	5
830421	11	2100	U	2	42	.8	5
830421	11	2100	U	3	38	.6	5
830421	11	2100	U	4	38	.6	5
830421	11	2100	U	5	40	.9	5
830421	11	2100	U	6	41	1.0	5
830421	11	2100	U	7	41	.7	5
830421	7	2140	U	7	42	1.0	5
830421	7	2140	U	8	45	1.1	5
830421	7	2140	U	9	38	.5	5
830421	7	2140	U	10	34	.5	5
830421	7	2140	U	11	41	.8	5
830421	7	2140	U	12	40	.6	5
830421	7	2140	U	13	38	.7	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830421	7	2140	U	14	41	.8	5
830421	7	2140	U	15	39	.7	5
830421	7	2140	U	16	42	.8	5
830421	7	2140	U	17	45	1.1	5
830422	48	1010	U	12	38	.8	5
830422	48	1010	U	14	37	.7	5
830422	48	1010	U	15	38	.8	5
830422	48	1010	U	16	33	.4	5
830422	48	1010	U	17	39	.6	5
830422	47	1010	U	18	39	.7	5
830422	47	1010	U	19	38	.6	5
830422	47	1010	U	20	39	.5	5
830422	47	1010	U	21	41	.8	5
830422	6	1035	U	1	38	.7	5
830423	241	1500	U	5	136	24.2	5
830423	241	1500	U	7	115	15.9	5
830423	241	1500	U	8	122	17.1	5
830423	241	1500	U	9	119	15.9	5
830423	241	1500	U	10	136	23.8	5
830423	3	1625	U	13	41	.7	5
830423	3	1625	U	14	40	.8	5
830423	3	1625	U	15	40	.6	5
830423	3	1625	U	16	42	.7	5
830423	3	1625	U	17	40	.6	5
830423	3	1625	U	18	38	.6	5
830423	3	1625	U	19	40	.6	5
830423	3	1625	U	20	42	.9	5
830423	3	1625	U	21	41	.7	5
830423	3	1625	U	22	40	.7	5
830423	3	1625	U	23	40	.7	5
830423	6	1755	U	5	40	.7	5
830423	6	1755	U	6	42	.9	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830423	6	1755	U	7	41	.9	5
830423	6	1755	U	8	42	.8	5
830423	6	1755	U	9	37	.6	5
830423	6	1755	U	10	41	.8	5
830423	6	1755	U	11	40	.8	5
830423	6	1755	U	12	39	.9	5
830423	6	1755	U	13	40	1.0	5
830423	6	1755	U	14	43	.9	5
830423	6	1755	U	15	40	.7	5
830423	6	1755	U	16	40	.8	5
830423	6	1755	U	17	41	.8	5
830423	6	1755	U	18	42	.7	5
830423	6	1755	U	19	39	.7	5
830423	6	1755	U	20	43	.8	5
830423	6	1755	U	21	43	.9	5
830423	6	1755	U	22	39	.7	5
830424	47	0750	U	2	37	.6	5
830424	47	0750	U	3	95	9.6	5
830424	6	0915	U	1	42	1.0	5
830424	6	0915	U	2	39	.7	5
830424	6	0915	U	3	40	.9	5
830424	6	0915	U	4	40	.9	5
830424	6	0915	U	5	42	1.0	5
830424	6	0915			42	.7	5
830424	6	0915			42	.7	5
830424	6	0915			41	.7	5
830424	6	0915			40	.7	5
830424	6	0915			40	.8	5
830424	6	0915			40	.6	5
830424	6	0915			43	.8	5
830424	6	0915			40	.7	5
830424	6	0915			39	.6	5

TABLE IV

DATE	STN	TIME PST	FISH CODE	L MM	WT G	SP
830424	6	0915		41	.7	5
830424	6	0915		44	.9	5
830424	6	0915		41	.7	5
830424	6	0915		37	.5	5
830424	6	0915		42	.7	5
830424	6	0915		42	.7	5
830424	6	0915		39	.3	5
830424	6	0915		42	.8	5
830424	6	0915		39	.6	5
830424	6	0915		55	2.1	5
830424	6	0915		46	1.1	5
830424	6	0915		41	.7	5
830424	6	0915		45	.8	5
830424	6	0915		43	.8	5
830424	6	0915		44	1.0	5
830424	6	0915		47	1.1	5
830424	6	0915		43	.8	5
830424	6	0915		43	.8	5
830424	6	0915		44	1.0	5
830424	6	0915		43	.9	5
830424	6	0915		41	.8	5
830424	6	0915		43	.8	5
830424	6	0915		44	.9	5
830424	6	0915		42	.8	5
830424	6	0915		42	.8	5
830424	6	0915		41	.8	5
830424	6	0915		39	.6	5
830424	6	0915		43	.8	5
830424	6	0915		42	.8	5
830424	6	0915		44	1.0	5
830424	6	0915		43	.9	5
830424	6	0915		46	1.2	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830424	6	0915			43	.8	5
830424	6	0915			41	.7	5
830424	6	0915			40	.7	5
830424	6	0915			38	.5	5
830424	6	0915			42	.7	5
830424	6	0915			41	.6	5
830424	1	0935	U	1	75	4.3	5
830425	7	0805	U	3	42	.8	5
830505	15	1400	U	1	36	.5	5
830505	15	1400	U	2	35	.5	5
830505	15	1400	U	3	40	.7	5
830505	15	1400	U	4	42	.9	5
830505	15	1400	U	5	37	.8	5
830505	15	1400	U	6	37	.9	5
830505	15	1400	U	7	36	.7	5
830505	15	1400	U	8	37	.6	5
830505	15	1400	U	9	41	.9	5
830505	15	1400	U	10	39	.7	5
830505	6	1450	U	1	40	.7	5
830505	6	1450	U	2	43	.9	5
830505	6	1450	U	3	39	.8	5
830505	6	1450	U	4	43	1.0	5
830505	6	1450	U	5	45	.9	5
830505	6	1450	U	6	44	1.2	5
830505	6	1450	U	7	46	1.2	5
830505	6	1450	U	8	48	1.3	5
830505	6	1450	U	9	46	1.2	5
830505	6	1450	U	10	45	1.0	5
830505	6	1450	U	11	44	1.0	5
830505	6	1450	U	12	46	1.0	5
830507	47	1315	U	1	39	.8	5
830507	47	1315	U	2	42	.9	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830507	47	1315	U	3	41	.8	5
830507	47	1315	U	4	38	.7	5
830507	47	1315	U	5	41	.9	5
830507	47	1315	U	6	41	1.0	5
830507	47	1315	U	7	40	.9	5
830507	47	1315	U	8	42	.9	5
830507	47	1315	U	9	45	1.2	5
830507	47	1315	U	10	44	1.3	5
830507	6	1405	U	2	52	1.1	5
830507	6	1405	U	3	49	1.1	5
830507	6	1405	U	4	50	1.2	5
830507	6	1405	U	5	43	.8	5
830507	6	1405	U	6	50	1.0	5
830507	6	1405	U	7	51	1.0	5
830508	6	0830	U	2	43	.8	5
830508	6	0830	U	3	42	.8	5
830508	6	0830	U	4	44	1.0	5
830508	28	1025	U	1	44	.9	5
830508	28	1025	U	2	53	1.6	5
830508	28	1025	U	3	53	1.9	5
830508	28	1025	U	4	53	1.6	5
830508	28	1025	U	5	52	1.4	5
830508	28	1025	U	6	49	1.3	5
830508	28	1025	U	7	44	.7	5
830508	28	1025	U	8	46	.9	5
830508	28	1025	U	9	45	.7	5
830517	30	1110	U	1	53	1.6	5
830517	23	1240	U	4	54	1.6	5
830517	35	1430	U	1	121	18.8	5
830517	35	1430	U	2	94	8.0	5
830517	20	1535	U	1	37	.6	5
830517	20	1535	U	2	44	.8	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830517	20	1535	U	3	47	1.1	5
830517	20	1535	U	4	48	1.1	5
830517	20	1535	U	5	56	2.1	5
830518	7	0720	U	1	81	5.5	5
830518	4	0925	U	1	49	1.3	5
830518	4	0925	U	2	49	1.5	5
830518	4	0925	U	3	46	1.1	5
830518	4	0925	U	4	50	1.6	5
830518	4	0925	U	5	49	1.5	5
830518	4	0925	U	6	46	1.0	5
830518	4	0925	U	7	45	1.3	5
830518	4	0925	U	8	51	1.6	5
830518	4	0925	U	9	53	1.8	5
830518	4	0925	U	10	54	2.0	5
830518	4	0925	U	11	53	2.1	5
830518	4	0925	U	12	83	5.9	5
830518	151	1154	U	2	40	.7	5
830518	151	1154	U	3	40	.7	5
830518	151	1154	U	4	39	.7	5
830518	151	1154	U	5	40	.8	5
830518	151	1154	U	6	42	.8	5
830518	151	1154	U	7	41	.7	5
830518	151	1154	U	8	37	.7	5
830518	151	1154	U	9	40	.8	5
830518	151	1154	U	10	43	.7	5
830518	151	1154	U	11	42	.8	5
830518	4	1435	U	1	59	2.4	5
830518	5	1525	U	1	79	4.6	5
830518	5	1525	U	2	92	8.6	5
830518	34	1700	U	3	41	.7	5
830518	34	1700	U	4	42	.9	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830518	34	1700	U	5	47	1.3	5
830518	34	1700	U	6	53	1.8	5
830518	34	1700	U	7	57	2.1	5
830518	34	1700	U	8	49	1.5	5
830518	34	1700	U	9	50	1.6	5
830518	34	1700	U	10	51	1.7	5
830519	1	0715	U	1	79	5.4	5
830519	1	0715	U	2	93	8.3	5
830526	7	1315			60	2.4	5
830526	7	1315			43	.7	5
830526	7	1315			54	1.6	5
830526	7	1315			54	1.7	5
830526	7	1315			60	2.2	5
830526	7	1315			59	2.0	5
830526	7	1315			54	1.6	5
830526	7	1315			44	.8	5
830526	7	1315			44	.8	5
830526	7	1315			52	1.6	5
830526	7	1315			53	1.6	5
830526	7	1315			50	1.3	5
830526	7	1315			53	1.2	5
830526	7	1315			56	1.9	5
830526	7	1315			58	2.1	5
830526	7	1315			59	2.4	5
830526	7	1315			47	1.1	5
830526	7	1315			43	.6	5
830526	7	1315			59	2.2	5
830526	7	1315			59	2.2	5
830526	7	1315			62	2.3	5
830526	7	1315			63	2.6	5
830526	7	1315			54	1.4	5
830526	7	1315			54	1.3	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830526	7	1315			52	1.3	5
830526	7	1315			55	1.6	5
830526	7	1315			56	1.6	5
830526	7	1315			49	1.4	5
830526	7	1315			54	1.7	5
830526	7	1315			44	.7	5
830526	7	1315			41	.6	5
830526	7	1315			44	.7	5
830526	7	1315			55	1.7	5
830526	7	1315			57	1.9	5
830526	7	1315			43	.7	5
830526	7	1315			47	.9	5
830526	7	1315			54	1.5	5
830526	7	1315			53	1.6	5
830526	7	1315			43	.6	5
830526	7	1315			53	1.4	5
830526	7	1315			52	1.4	5
830526	7	1315			56	1.7	5
830526	7	1315			54	1.8	5
830526	7	1315			61	2.4	5
830526	7	1315			51	1.2	5
830526	7	1315			44	.7	5
830526	7	1315			57	1.6	5
830526	7	1315			55	1.4	5
830526	7	1315			62	2.3	5
830526	7	1315			56	1.8	5
830526	7	1315			44	.7	5
830527	1	2025	U	2	82	6.0	5
830527	1	2025	U	1	85	5.9	5
830527	1	2025	U	2	75	3.9	5
830528	8	0900	U	1	97	10.6	5
830528	8	0900	U	3	111	16.6	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830528	5	0945	U	1	82	6.0	5
830528	5	0945	U	2	88	6.8	5
830528	345	1100			73	5.2	5
830528	345	1100			62	3.3	5
830528	345	1100			67	4.0	5
830528	345	1100			60	2.6	5
830528	345	1100			50	1.6	5
830528	345	1100			65	3.5	5
830528	345	1100			72	5.2	5
830528	345	1100			61	2.8	5
830528	345	1100			62	3.1	5
830528	345	1100			46	1.0	5
830528	345	1100			63	3.3	5
830528	345	1100			57	2.4	5
830528	345	1100			57	2.4	5
830528	345	1100			57	2.3	5
830528	345	1100			58	2.5	5
830528	345	1100			52	1.6	5
830528	345	1100			61	3.1	5
830528	345	1100			65	3.4	5
830528	345	1100			67	3.6	5
830528	345	1100			62	3.2	5
830528	345	1100			70	4.2	5
830528	345	1100			58	2.3	5
830528	345	1100			60	2.7	5
830528	345	1100			60	2.8	5
830528	345	1100			53	1.8	5
830528	345	1100			70	5.0	5
830528	345	1100			60	2.9	5
830528	345	1100			65	3.4	5
830528	345	1100			51	1.6	5
830528	345	1100			71	4.2	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830528	345	1100			61	3.0	5
830528	345	1100			64	3.3	5
830528	345	1100			65	3.4	5
830528	345	1100			54	1.8	5
830528	345	1100			57	2.3	5
830528	345	1100			55	2.0	5
830528	345	1100			51	1.6	5
830528	345	1100			66	3.9	5
830528	2	1420	U	1	135	24.9	5
830528	2	1420	U	2	119	16.2	5
830529	21	0825	U	1	75	3.9	5
830529	21	0825			76	4.8	5
830529	21	0825			43	.9	5
830529	21	0825			55	2.2	5
830529	21	0825			56	1.2	5
830529	21	0825			59	1.4	5
830529	47	0935			65	3.4	5
830529	47	0935			64	2.8	5
830529	47	0935			61	2.4	5
830529	47	0935			61	2.6	5
830529	47	0935			54	1.6	5
830529	47	0935			63	2.8	5
830529	47	0935			54	1.5	5
830529	47	0935			58	2.0	5
830529	47	0935			55	1.9	5
830529	47	0935			61	2.3	5
830529	47	0935			67	3.5	5
830529	47	0935			61	2.4	5
830529	47	0935			60	2.7	5
830529	47	0935			59	2.4	5
830529	47	0935			52	1.5	5
830529	47	0935			53	1.7	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830529	47	0935			64	2.8	5
830529	47	0935			66	3.4	5
830529	47	0935			54	1.6	5
830529	47	0935			63	3.0	5
830529	47	0935			51	1.4	5
830529	47	0935			57	2.3	5
830529	47	0935			63	2.4	5
830529	47	0935			50	1.1	5
830529	47	0935			52	1.5	5
830529	47	0935			57	1.9	5
830529	47	0935			55	1.6	5
830529	47	0935			68	3.6	5
830529	47	0935			54	2.0	5
830529	47	0935			56	2.2	5
830606	6	1505	U	1	55	2.3	5
830606	6	1505	U	2	49	1.5	5
830606	6	1505	U	3	50	1.5	5
830606	6	1505	U	4	58	2.6	5
830606	6	1505	U	5	56	2.3	5
830606	6	1505	U	6	53	1.8	5
830606	6	1505	U	7	51	1.8	5
830606	7	1540	U	1	95	5.6	5
830607	47	1840	U	1	71	4.4	5
830607	47	1840	U	2	64	3.4	5
830607	47	1840	U	3	73	5.2	5
830607	47	1840	U	4	59	2.7	5
830607	47	1840	U	5	65	3.6	5
830607	47	1840	U	6	67	3.0	5
830607	47	1840	U	7	59	2.5	5
830607	47	1840	U	8	51	1.5	5
830607	47	1840	U	9	54	2.2	5
830607	6	1925	U	1	49	1.2	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830607	6	1925	U	2	58	2.4	5
830607	6	1925	U	1	80	7.1	5
830607	1	2030	U	1	108	15.5	5
830608	-1	-1	U	7	96	8.7	5
830608	8	1900	U	1	66	3.3	5
830608	8	1900	U	2	44	1.2	5
830608	8	1900	U	3	48	1.4	5
830608	1	1935	U	1	57	2.1	5
830608	1	1935	U	2	59	2.3	5
830608	1	1935	U	3	70	4.7	5
830608	1	1935	U	4	55	2.1	5
830608	1	1935	U	5	70	3.8	5
830608	1	1935	U	6	74	4.3	5
830608	1	1935	U	7	65	3.2	5
830608	1	1935	U	8	77	4.0	5
830608	1	1935	U	9	66	3.2	5
830608	1	1935	U	10	60	2.4	5
830608	1	1935	U	11	63	2.7	5
830608	1	1935	U	12	48	1.4	5
830608	1	1935	U	13	66	3.1	5
830608	1	1935	U	14	60	2.5	5
830608	1	1935	U	15	41	.7	5
830616	8	1500			61	3.1	5
830616	8	1500			78	6.7	5
830616	8	1500			64	3.6	5
830616	8	1500			68	4.2	5
830616	8	1500			69	4.4	5
830616	8	1500			71	4.1	5
830616	8	1500			71	4.3	5
830616	8	1500			60	2.5	5
830616	8	1500			64	3.4	5
830616	8	1500			58	2.3	5

TABLE IV

DATE	STN	TIME PST	FISH CODE	L MM	WT G	SP
830616	8	1500		66	3.8	5
830616	8	1500		59	2.8	5
830616	8	1500		63	3.3	5
830616	8	1500		58	2.6	5
830616	8	1500		68	3.5	5
830616	8	1500		49	1.3	5
830616	8	1500		76	5.7	5
830616	8	1500		52	1.7	5
830616	8	1500		56	3.4	5
830616	8	1500		52	1.8	5
830616	8	1500		63	3.1	5
830616	8	1500		73	4.6	5
830616	8	1500		74	4.8	5
830616	6	1520		58	2.4	5
830616	6	1520		65	3.5	5
830616	6	1520		61	2.8	5
830616	6	1520		72	4.4	5
830616	6	1520		57	2.4	5
830616	6	1520		59	2.3	5
830616	6	1520		66	3.3	5
830616	6	1520		61	3.0	5
830616	6	1520		62	2.6	5
830616	6	1520		44	1.1	5
830616	6	1520		70	4.5	5
830616	6	1520		72	4.8	5
830616	6	1520		68	3.9	5
830616	6	1520		66	3.5	5
830616	6	1520		72	4.3	5
830616	6	1520		68	4.1	5
830616	6	1520		56	2.3	5
830616	6	1520		77	5.4	5
830616	6	1520		65	3.3	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830616	6	1520			73	5.2	5
830616	6	1520			57	2.8	5
830616	6	1530	U	1	74	5.0	5
830616	6	1530	U	2	65	3.6	5
830616	6	1530	U	3	60	3.0	5
830616	6	1530	U	4	77	6.1	5
830616	6	1530	U	5	47	1.3	5
830616	6	1530	U	6	71	4.8	5
830616	6	1530	U	7	58	2.7	5
830616	6	1530	U	8	63	3.4	5
830616	6	1530	U	9	57	2.5	5
830616	6	1530	U	10	71	4.6	5
830616	6	1530	U	11	69	3.9	5
830616	6	1530	U	12	55	2.1	5
830616	6	1530	U	13	52	1.9	5
830616	4	1620	U	1	64	3.3	5
830616	4	1620	U	2	67	3.6	5
830616	34	1730	U	1	90	8.4	5
830616	34	1730			71	4.9	5
830616	34	1730			86	7.5	5
830616	34	1730			81	6.8	5
830616	34	1730			65	3.7	5
830616	34	1730			92	9.0	5
830616	34	1730			68	4.3	5
830616	34	1730			82	6.4	5
830616	34	1730			83	7.0	5
830616	34	1730			89	9.0	5
830616	34	1730			73	4.9	5
830616	34	1730			76	5.3	5
830616	34	1730			71	4.2	5
830616	34	1730			75	5.0	5
830616	34	1730			74	5.7	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830616	34	1730			79	5.9	5
830616	34	1730			87	7.9	5
830616	34	1730			64	3.9	5
830616	34	1730			78	5.7	5
830616	34	1730			82	7.2	5
830616	34	1730			81	6.2	5
830616	34	1730			61	3.3	5
830616	34	1730			85	7.5	5
830616	34	1730			62	3.1	5
830616	34	1730			75	5.3	5
830616	34	1730			61	3.1	5
830616	34	1730			69	3.8	5
830616	34	1730			75	5.3	5
830616	34	1730			73	5.2	5
830616	34	1730			84	7.9	5
830616	34	1730			78	6.0	5
830616	34	1730			65	3.9	5
830616	34	1730			62	2.9	5
830616	34	1730			75	5.1	5
830616	34	1730			69	4.3	5
830616	34	1730			61	2.9	5
830616	34	1730			73	4.6	5
830617	32	0910	U	1	64	2.6	5
830617	24	1120	U	1	109	13.7	5
830617	24	1120	U	2	105	13.0	5
830617	25	1245	U	1	74	4.8	5
830617	25	1245	U	2	72	4.3	5
830617	25	1245	U	3	65	3.4	5
830617	25	1245	U	4	63	3.0	5
830617	25	1245	U	5	68	3.7	5
830617	25	1245	U	6	61	2.9	5
830617	25	1245	U	7	64	3.3	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830617	25	1245	U	8	65	3.7	5
830617	25	1245	U	9	63	3.3	5
830617	25	1245	U	10	53	2.0	5
830617	25	1245	U	11	70	4.2	5
830617	28	1355	U	1	65	3.2	5
830617	28	1355	U	2	67	3.2	5
830617	28	1355	U	3	67	3.5	5
830617	28	1355	U	4	66	3.3	5
830617	28	1355	U	5	72	4.3	5
830618	111	-1	U	1	84	6.8	5
830618	111	-1	U	2	63	2.9	5
830618	111	-1	U	3	61	2.8	5
830618	111	-1	U	4	69	4.1	5
830618	111	-1	U	5	66	3.3	5
830618	111	-1	U	6	68	3.6	5
830618	111	-1	U	7	55	2.1	5
830618	111	-1	U	8	58	2.4	5
830618	111	-1	U	9	66	3.4	5
830618	111	-1	U	10	68	3.6	5
830707	7	1355	U	1	68	3.9	5
830707	7	1355	U	2	65	3.5	5
830707	7	1355	U	3	68	3.8	5
830707	7	1355	U	4	71	4.3	5
830707	7	1355	U	5	73	4.8	5
830707	7	1355	U	6	73	4.6	5
830707	7	1355	U	7	68	4.1	5
830707	7	1355	U	8	64	3.4	5
830707	7	1355	U	9	65	3.1	5
830707	7	1355	U	10	67	3.8	5
830708	31	0805	U	1	102	10.2	5
830708	31	0805	U	2	102	10.4	5
830708	31	0805	U	3	103	11.2	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830708	31	0805	U	4	105	11.6	5
830708	31	0805	U	5	106	11.3	5
830708	31	0805	U	6	89	6.9	5
830708	31	0805	U	7	102	11.0	5
830708	31	0805	U	8	107	12.9	5
830708	323	1050	U	1	109	15.4	5
830708	323	1050	U	2	83	5.8	5
830708	323	1050	U	3	99	10.7	5
830708	323	1050	U	4	106	11.5	5
830708	323	1050	U	5	103	10.0	5
830708	323	1050	U	6	99	10.0	5
830708	323	1050	U	7	98	10.0	5
830708	323	1050	U	8	95	8.8	5
830708	21	1355	U	1	109	13.9	5
830709	5	0850	U	1	84	6.8	5
830709	35	0910	U	1	108	14.9	5
830709	35	0910	U	2	108	13.1	5
830709	35	0910	U	3	104	12.9	5
830709	35	0910	U	4	109	11.0	5
830709	35	0910	U	5	101	12.1	5
830709	35	0910	U	6	97	9.8	5
830709	35	0910	U	7	84	6.7	5
830709	35	0910	U	8	87	7.8	5
830709	35	0910	U	9	81	5.7	5
830709	16	1320	U	1	90	9.4	5
830709	16	1320	U	2	87	8.4	5
830709	16	1320	U	3	69	3.8	5
830709	16	1320	U	4	84	7.2	5
830709	16	1320	U	5	81	7.0	5
830709	16	1320	U	6	81	6.6	5
830709	10	1450	U	1	76	5.8	5
830709	10	1450	U	2	73	4.6	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830709	10	1450	U	3	80	5.9	5
830709	10	1450	U	4	85	7.8	5
830709	10	1450	U	5	80	6.2	5
830709	10	1450	U	6	68	4.0	5
830709	10	1450	U	7	78	5.7	5
830709	10	1450	U	8	77	5.5	5
830721	7	0745	U	1	96	10.5	5
830721	7	0745	U	2	104	14.5	5
830721	7	0745	U	3	87	8.9	5
830721	7	0745	U	4	88	8.4	5
830721	7	0745	U	5	95	10.9	5
830721	7	0745	U	6	98	11.6	5
830721	7	0745	U	7	87	8.5	5
830721	7	0745	U	8	101	12.7	5
830721	7	0745	U	9	93	10.1	5
830721	7	0745	U	10	83	7.8	5
830721	7	0745	U	11	107	15.1	5
830721	7	0745	U	12	89	8.9	5
830721	7	0745	U	13	97	11.3	5
830721	7	0745	U	14	92	9.5	5
830721	7	0745	U	15	91	9.3	5
830721	7	0745	U	16	81	6.6	5
830721	7	0745	U	17	83	6.9	5
830721	7	0745	U	18	89	9.2	5
830721	7	0745	U	19	85	7.6	5
830721	7	0745	U	20	84	7.9	5
830721	7	0745	U	21	93	10.8	5
830721	7	0745	U	22	93	10.2	5
830721	7	0745	U	23	89	8.2	5
830721	7	0745	U	24	78	6.4	5
830721	7	0745	U	25	75	5.8	5
830721	7	0745	U	26	83	7.5	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830721	7	0745	U	27	90	9.1	5
830721	7	0745	U	28	83	7.4	5
830721	7	0745	U	29	83	7.3	5
830721	7	0745	U	30	94	10.9	5
830721	7	0745	U	31	69	4.5	5
830721	7	0745	U	32	88	8.7	5
830721	7	0745	U	33	83	7.1	5
830721	7	0745	U	34	89	8.9	5
830721	7	0745	U	35	86	8.5	5
830721	7	0745	U	36	83	7.5	5
830721	7	0745	U	37	83	7.8	5
830721	7	0745	U	38	88	8.5	5
830721	7	0745	U	39	85	7.8	5
830721	7	0745	U	40	72	5.2	5
830721	34	1020	U	1	95	9.8	5
830721	34	1020	U	2	93	9.1	5
830721	34	1020	U	3	94	9.7	5
830721	34	1020	U	4	77	5.4	5
830721	34	1020	U	5	99	11.8	5
830721	34	1020	U	6	106	15.0	5
830721	34	1020	U	7	93	9.6	5
830721	34	1020	U	8	90	8.9	5
830721	34	1020	U	9	75	5.5	5
830721	34	1020	U	10	77	5.8	5
830721	34	1020	U	11	93	9.8	5
830721	34	1020	U	12	83	6.9	5
830721	21	1050	U	1	124	19.9	5
830721	21	1050	U	2	117	16.4	5
830721	21	1050	U	3	120	20.4	5
830721	21	1050	U	4	109	14.1	5
830721	21	1050	U	5	114	15.6	5
830721	21	1050	U	6	111	15.0	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830721	21	1050	U	7	103	10.5	5
830721	21	1050	U	8	113	15.1	5
830721	21	1050	U	9	123	19.7	5
830721	21	1050	U	10	129	21.5	5
830721	21	1050	U	11	120	18.7	5
830721	21	1050	U	12	104	12.1	5
830721	21	1050	U	13	100	10.8	5
830721	21	1050	U	14	90	8.0	5
830721	21	1050	U	15	110	15.6	5
830721	21	1050	U	16	120	20.1	5
830721	21	1050	U	17	75	5.2	5
830721	21	1050	U	18	110	14.8	5
830721	21	1050	U	19	103	12.9	5
830721	21	1050	U	20	110	14.9	5
830721	21	1050	U	21	121	20.3	5
830721	21	1050	U	22	77	5.6	5
830721	1	1410	U	1	90	9.4	5
830721	1	1410	U	2	84	7.8	5
830722	47	0710	U	1	67	3.6	5
830722	47	0710	U	2	65	3.8	5
830722	47	0710	U	3	76	5.3	5
830722	47	0710	U	4	77	5.5	5
830722	47	0710	U	5	75	5.3	5
830722	47	0710	U	6	76	5.4	5
830722	47	0710	U	7	79	5.8	5
830722	47	0710	U	8	68	3.6	5
830722	47	0710	U	9	71	4.5	5
830722	47	0710	U	10	72	4.6	5
830722	47	0710	U	11	49	1.6	5
830802	10	1415	U	1	93	10.9	5
830802	10	1415	U	2	86	8.4	5
830802	10	1415	U	3	79	7.0	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830802	10	1415	U	4	90	9.5	5
830802	10	1415	U	5	93	10.6	5
830802	10	1415	U	6	98	10.9	5
830802	6	1530	U	1	95	9.8	5
830802	6	1530	U	2	89	9.5	5
830802	6	1530	U	3	94	10.3	5
830802	6	1530	U	4	91	9.3	5
830802	6	1800	U	1	113	19.6	5
830802	6	1800	U	2	104	14.4	5
830802	6	1800	U	3	97	12.4	5
830802	6	1800	U	4	96	10.3	5
830802	6	1800	U	5	90	8.9	5
830802	6	1800	U	6	90	8.7	5
830802	6	1800	U	7	106	15.4	5
830802	6	1800	U	8	110	18.6	5
830803	21	0545	U	1	85	7.6	5
830803	21	0545	U	2	79	6.1	5
830803	21	0545	U	3	83	7.7	5
830803	24	1220	U	1	90	7.9	5
830803	24	1220	U	2	104	11.0	5
830803	24	1220	U	3	117	19.9	5
830803	24	1220	U	4	129	23.5	5
830803	24	1220	U	5	125	22.1	5
830803	24	1220	U	6	113	14.6	5
830804	34	0715	U	1	89	10.1	5
830804	1	0800	U	1	79	6.0	5
830804	1	0800	U	2	118	21.1	5
830804	1	0800	U	3	73	4.7	5
830804	1	0800	U	4	77	5.8	5
830804	1	0800	U	5	72	4.8	5
830804	1	0800	U	6	84	7.4	5
830804	6	1345	U	1	97	12.0	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830804	6	1345	U	2	105	15.4	5
830804	6	1345	U	3	95	10.9	5
830804	6	1345	U	4	94	10.4	5
830804	6	1345	U	5	108	15.1	5
830804	4	1400	U	1	127	24.1	5
830816	6	1515	U	1	124	24.2	5
830816	6	1515	U	2	132	28.4	5
830816	6	1515	U	3	131	28.9	5
830816	6	1515	U	4	110	17.1	5
830816	6	1515	U	5	135	32.6	5
830816	6	1515	U	6	92	10.3	5
830816	6	1515	U	7	112	20.1	5
830816	6	1515	U	8	110	19.7	5
830816	6	1515	U	9	117	20.7	5
830816	6	1515	U	10	101	12.5	5
830816	1	1536	U	1	111	15.6	5
830817	1	1447	U	1	72	4.8	5
830817	1	1447	U	2	85	7.2	5
830817	1	1447	U	3	90	9.1	5
830817	1	1447	U	4	83	6.9	5
830817	1	1447	U	5	81	6.4	5
830817	1	1447	U	6	80	5.9	5
830817	1	1450	U	1	112	16.9	5
830817	1	1450	U	2	96	9.9	5
830818	21	0720	U	1	120	17.8	5
830818	21	0720	U	2	128	21.2	5
830818	292	0745	U	1	99	11.5	5
830818	292	0745	U	2	89	8.1	5
830818	292	0745	U	3	105	14.6	5
830818	292	0745	U	4	90	9.2	5
830818	292	0745	U	5	108	16.5	5
830818	292	0745	U	6	84	7.8	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830818	292	0745	U	8	113	17.8	5
830818	292	0745	U	9	89	8.6	5
830818	1	0850	U	1	86	5.2	5
830818	1	0850	U	2	92	9.5	5
830818	1	0850	U	3	78	6.2	5
830818	1	0850	U	4	85	7.1	5
830818	1	0850	U	5	102	13.5	5
830818	6	0920	U	1	106	15.6	5
830818	6	0920	U	2	120	25.4	5
830818	6	0920	U	3	97	11.6	5
830818	6	0920	U	4	82	7.2	5
830818	6	0925	U	1	116	24.8	5
830818	6	0925	U	2	99	13.3	5
830818	10	0945	U	1	94	11.3	5
830818	10	0945	U	2	90	9.0	5
830818	10	0945	U	3	90	9.1	5
830818	10	0945	U	4	97	11.1	5
830818	10	0945	U	5	99	12.6	5
830818	10	0945	U	6	93	10.2	5
830818	10	0945	U	7	97	11.4	5
830818	10	0945	U	8	92	9.5	5
830818	10	0945	U	9	78	6.7	5
830906	7	1240	U	1	124	29.6	5
830906	7	1240	U	2	115	21.3	5
830906	7	1240	U	3	109	18.1	5
830906	6	1305	U	3	109	20.4	5
830906	6	1305	U	4	124	29.2	5
830906	6	1305	U	6	140	41.6	5
830906	6	1305	U	7	122	26.8	5
830906	6	1305	U	10	112	18.7	5
830906	6	1305	U	11	102	14.3	5
830906	6	1305	U	12	103	15.6	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
830907	21	1250	U	2	98	11.8	5
830907	21	1250	U	3	117	18.3	5
830907	21	1250	U	4	86	7.5	5
830907	21	1250	U	5	116	18.0	5
830907	21	1250	U	6	139	26.7	5
830907	21	1250	U	7	116	18.1	5
830907	21	1250	U	8	96	11.0	5
830907	21	1250	U	9	81	6.6	5
830907	21	1250	U	10	103	12.5	5
830907	21	1250	U	11	136	24.5	5
830907	1	1430	U	1	87	9.3	5
830907	1	1430	U	2	101	17.8	5
830908	10	0715	U	1	100	14.5	5
830908	7	0725	U	1	121	23.2	5
830908	8	0740	U	2	143	44.8	5
831005	6	0815	U	1	128	28.0	5
831005	6	0815	U	2	151	47.5	5
831005	6	1420	U	3	156	54.0	5
831005	6	1420	U	4	145	43.6	5
831005	6	1420	U	5	173	70.8	5
831005	6	1420	U	6	141	40.0	5
831005	6	1420	U	8	152	51.0	5
831005	6	1420	U	10	135	32.1	5
831005	6	1420	U	11	155	50.8	5
831005	6	1420	U	12	140	37.0	5
831005	6	1420	U	13	159	52.1	5
831006	7	0745	U	1	118	22.7	5
831107	47	2125	U	1	148	48.7	5
831107	10	2140	U	2	150	51.8	5
831107	10	2140	U	3	152	50.3	5
831107	1	2245	U	1	136	39.4	5
831107	1	2245	U	2	163	63.6	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
831108	1	0040	U	1	147	51.0	5
831108	5	0120	U	1	181	85.7	5
831108	4	0135	U	1	178	79.3	5
831108	4	0135	U	2	168	66.9	5
831108	4	0135	U	3	198	112.5	5
831108	6	2000	U	1	191	98.7	5
831108	6	2000	U	2	129	39.2	5
831108	6	2000	U	3	174	69.7	5
831108	6	2000	U	4	160	55.4	5
831108	11	2035	U	1	150	50.3	5
831108	11	2035	U	2	155	58.7	5
831108	11	2035	U	3	160	64.9	5
831108	151	2035	U	1	145	46.3	5
831108	15	2125	U	1	175	85.2	5
831108	16	2130	U	1	146	47.4	5
831108	16	2130	U	2	149	43.8	5
831108	17	2155	U	1	151	46.6	5
831108	17	2155	U	2	124	25.2	5
831108	18	2205	U	1	187	89.5	5
831108	18	2205	U	2	184	82.4	5
831108	18	2205	U	3	177	78.8	5
831108	18	2205	U	4	176	79.6	5
831108	18	2205	U	5	150	53.9	5
831108	7	2320	U	1	215	103.2	5
831108	7	2320	U	2	171	73.5	5
831108	7	2320	U	3	131	32.4	5
831108	7	2320	U	4	133	35.2	5
831109	7	0050	U	1	155	56.6	5
831109	7	0050	U	2	151	52.5	5
831206	7	2115	U	1	172	64.6	5
831206	8	2140	U	1	174	76.1	5
831206	8	2140	U	2	160	54.3	5

TABLE IV

DATE	STN	TIME PST	FISH CODE		L MM	WT G	SP
831207	7	0140	U	1	175	76.0	5
831207	7	0140	U	2	198	105.6	5
831207	7	0140	U	3	191	107.0	5
831207	7	0140	U	4	162	56.5	5
831207	7	0140	U	5	194	101.3	5
831207	7	1950	U	2	181	70.3	5
831207	7	1950	U	3	166	61.2	5
831207	7	1950	U	4	154	48.6	5
831207	18	2045	U	1	191	86.7	5
831207	18	2045	U	2	178	74.5	5
831207	18	2045	U	3	196	107.4	5

Figure 1. Chart of the Campbell River estuary showing stations where beach seining was conducted in 1983.

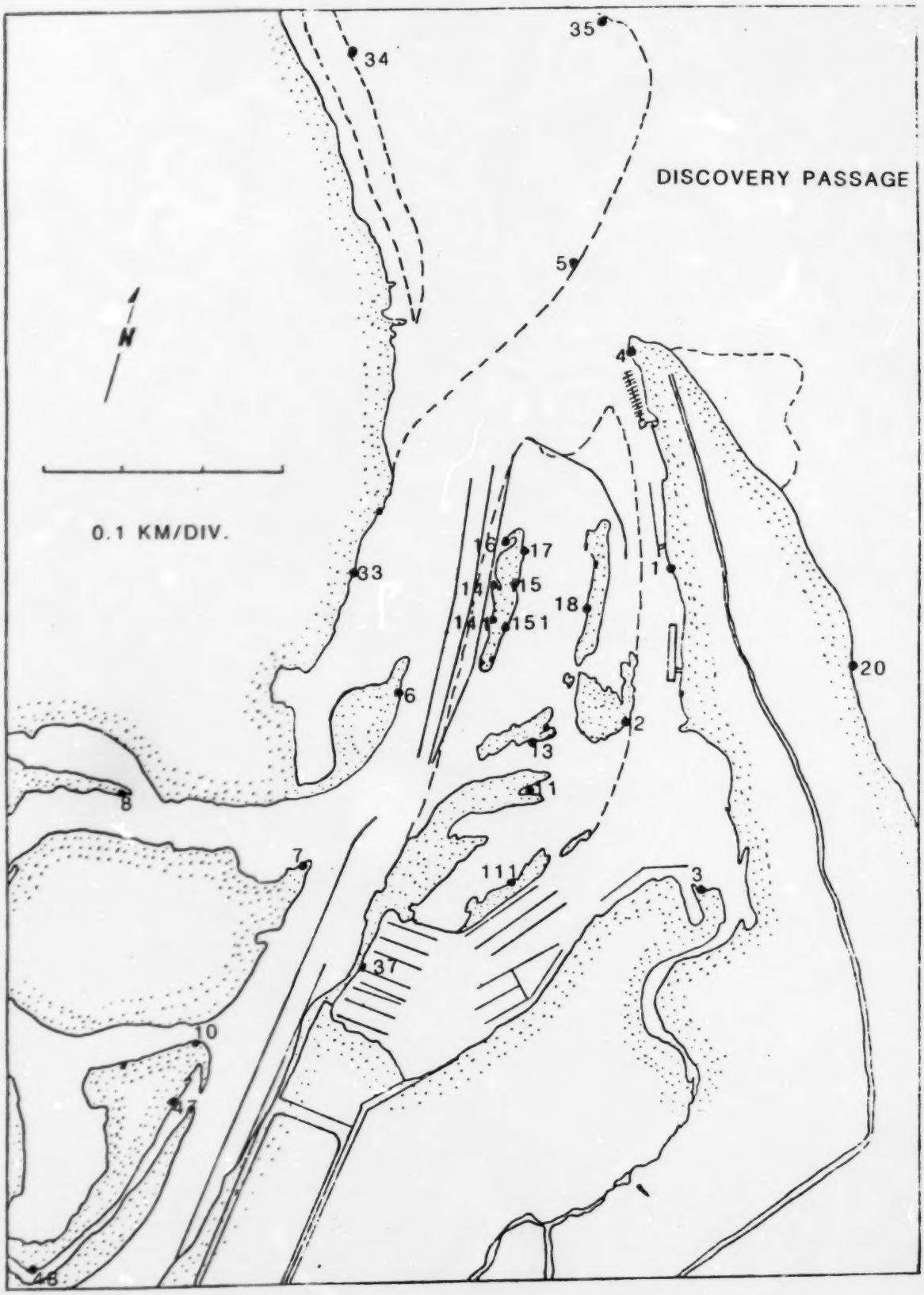
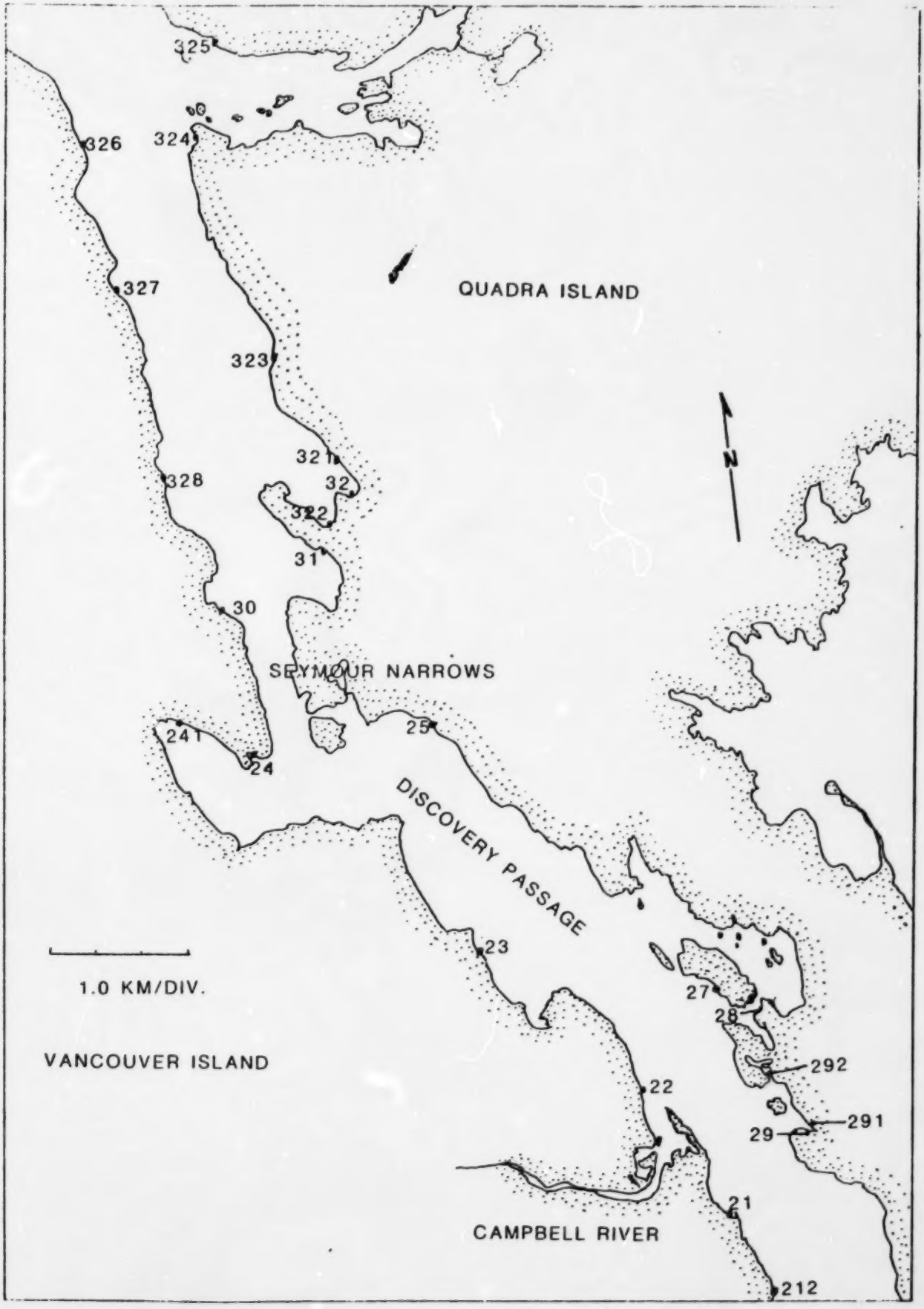

DISCOVERY PASSAGE
N
0.1 KM/DIV.
35
34
5
4
33
6
8
7
10
9
3
2
1
20
18
16
17
15
13
11

Figure 2. Chart of Discovery Passage showing stations where beach seining was conducted in 1983.


325
326
324
327
QUADRA ISLAND
323
321
328
32
322
31
30
N
SEYMOUR NARROWS
241
25
24
DISCOVERY PASSAGE
23
1.0 KM/DIV.
27
28
VANCOUVER ISLAND
292
22
291
29
21
CAMPBELL RIVER
212

POOR

QUALITY

ORIGINAL